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Bulletin 618

WISE WAYS  
TO WEIGHT CONTROL..

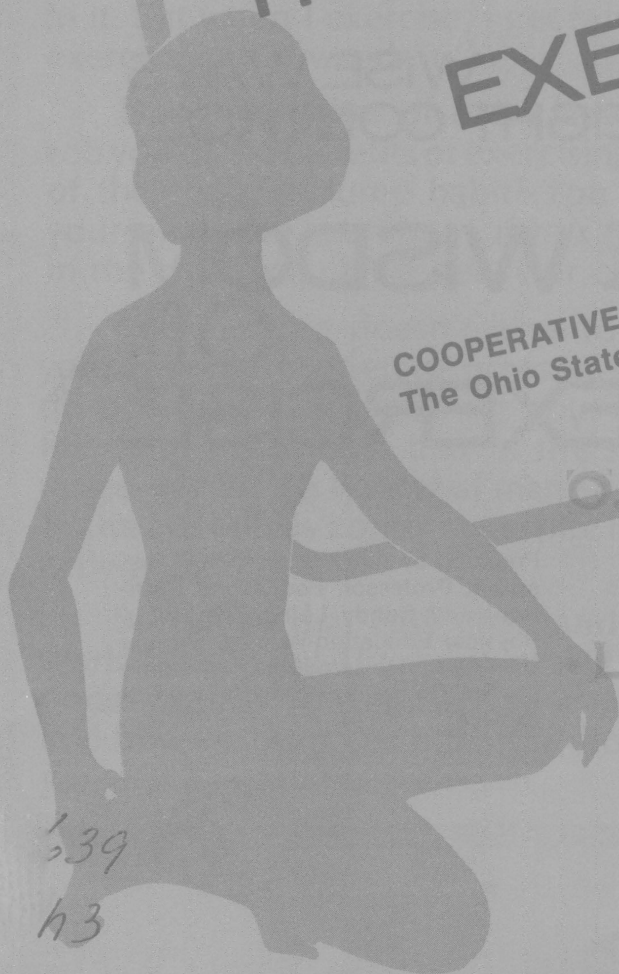
# THE WISDOM OF EXERCISE

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WISE WAYS  
TO WEIGHT CONTROL..

# THE WISDOM OF EXERCISE

Prepared by Janet Greger, Ph.D., Assistant Professor, Foods and Nutrition, and Sandy Laing, Instructor, Physical Education-Women, Purdue University. Reprinted with permission by The Ohio Cooperative Extension Service.

There are two basic rules to follow if you want to lose weight: consume fewer calories and use more calories. Simple? No! But they are possible. And if you follow the rules, you'll find the results worthwhile.

"But," you say, "I hate to exercise. I can eat less, but I simply can't exercise." Many overweight people feel the same way.

Or maybe you say, "Exercise? I believe in it. But when I exercise, I get hungrier. So exercising isn't worth it."

Don't let either of these lame excuses rob you of the benefits of exercising. Get out of the eat-and-slump habit! You can train yourself to like exercise — if you go about it in the right way. It's a behavior change.

And exercise doesn't have to increase your appetite. Moderate increases in activity do not necessarily increase your appetite. Research has shown that in the sedentary range — which is typical of many Americans — the appetite is constant despite increased activity!

So out of that easy chair and into the world of activity! This booklet will help you understand why exercise is so important — and how you can go about it without taxing yourself too much.

## **Your Day- An Exercise Opportunity**

Tonight, when you're ready for bed, think over your day. Was it something like this?

45 minutes—Walked around the house as you got ready for work and made breakfast

15 minutes—Sat as you drove to work

5 minutes—Walked to your office and took the elevator to the second floor

9 hours—Sat at your desk, occasionally walking a few steps to another office. Had lunch in a nearby building — less than a five minute walk away — and took the elevator to and from your office.

5 minutes—Walked to your car

30 minutes—Sat as you drove to the store to pick up a few items and then drove home

1 hour—Stood as you prepared dinner

30 minutes—Ate dinner

1 hour—Washed the dinner dishes and picked up things around the house

3 hours—Sat and sewed as you watched T.V.

8 hours—Slept

If your day was similar to this, you are like a lot of people. They work hard all day, yet they don't get much exercise. Of course, they're tired at the end of the day; mental work can be exhausting, too. But working with your mind doesn't take too many calories. The day described above requires about 750 Calories in addition to those needed to maintain your body.

If you're serious about weight control, you'll start working your body as well as your mind. First, look at your own activities. How long do you sit, stand, walk, or run each day? Then look at the following table and estimate how many calories you are using for each activity.

Activity	Calories used per minute above basal rate	
	By 132 lb. woman	By 176 lb. woman
Sitting quietly	.4	.5
Writing or eating	.4	.5
Standing, relaxed	.5	.7
Typing, rapidly with a manual typewriter	1.0	1.3
Typing, rapidly with an electric typewriter	.5	.7
Dressing and undressing	.7	.9
Driving a car	.9	1.2
Dishwashing	1.0	1.3
Laundry, light	1.3	1.7
Cleaning windows	2.6	3.5
Walking (rate about 4 mph)	3.4	4.5
Dancing, moderately active	3.8	5.1
Gardening, weeding	3.9	5.2
Bicycling (rate about 7 mph)	4.5	6.0
Tennis	5.0	6.7
Swimming (rate 30 yds/min.)	6.2	8.2
Running	7.0	9.3
Exercising (jump rope, sit-ups, etc.)	5.4 to 7.2	7.2 to 9.6
Walking down 15 steps (without regard to time)	.7	1.0
Walking up 15 steps (without regard to time)	2.2	2.9

## **Recipe for Activating**

After calculating your energy expenditure, you probably decided that you do need to activate! But how? Perhaps the way to start is by making small changes in your daily routine. Nothing spectacular, but still effective over the long run. For example:

- Park your car or get off the bus several blocks from home or work and walk the rest of the way. Parking your car one-half mile from your destination could mean “burning up” calories equivalent to five pounds a year. And there’s an added bonus: you may find parking free or less expensive a few blocks from your destination!
- Walk up and down stairs. Make elevators and escalators a no-no.
- Don’t take advantage of non-essential labor savers. For instance, you’ll burn up more calories if you have to walk to a distant phone rather than pick up a nearby extension. ATT claims that an extension phone saves the homemaker from walking 70 miles a year. If that’s true, the extension may also keep her from burning off calories equivalent to 15 pounds over a 10 year period! And riding a lawn mower may be faster than pushing one, but you won’t use many calories if you sit as you mow.

None of these little changes in your activity will cause immediate weight loss. After all, it does take 36 hours of walking to work off a pound. But remember, you don’t have to do all the walking at once. Energy is used even if you walk just a little every day. So in the long run, “activating” is important.

## **Getting into Condition**

However, you may want to “get into condition” and burn up even more calories. If so, a sensible exercise routine is a good idea. Besides, exercise does more than just burn up calories. It offers other bonuses, too. Exercise helps you tone up muscles so you look and feel better as you lose weight. And exercise can help you

control those external cues to your appetite; it can ward off boredom — and its associated hunger. And exercise helps do away with tension and anger, which also lead to eating.

So what's a good exercise routine? Dressing in leotards and "exercising" with a massage machine or playing touch football until you're exhausted? That's how most Americans think of it. But such routines don't really help dieters reach their goals.

Why? Because you need to form new habits that help you cut caloric intake and increase energy expenditure. That doesn't mean making a heroic sacrifice and starving yourself for a day or two — or exercising once until you're exhausted. Instead, it means moderate amounts of exercise on a routine basis. The most successful exercise routines are ones that are adjusted to meet your needs and your environment.

## **Programming your Exercise Routine**

So now let's develop an individualized exercise program for you to do in your home. There are three parts to the suggested routine — the warm-up, the exercises, and cool-off. Each part is important. So no skimping!

Here are the how's and why's you need to know about each phase of your routine:

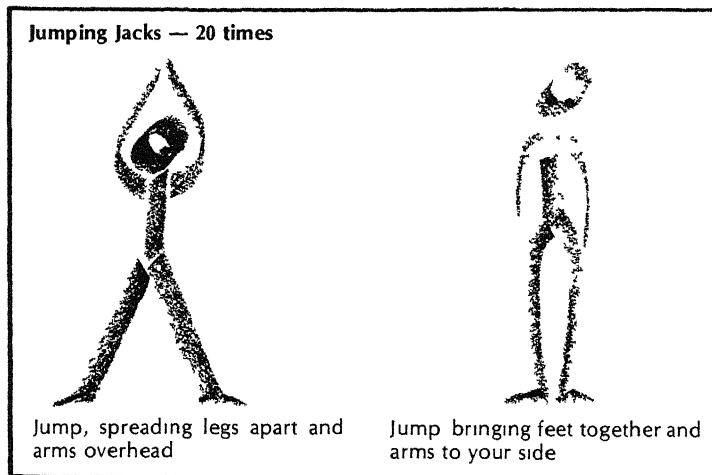
- **The warm-up** includes five minutes of exercise to prepare you for more strenuous exercises. They will help you get the best results from the exercises you do. This booklet contains suggested warm-up exercises.
- **The specific exercises** are designed to help you exercise all parts of your body. No two successive exercises tax the same major muscle groups. Each major muscle group needs to be exercised so that each will be toned and give your body more attractive lines. In addition, the program includes indoor jogging to help you develop better cardiovascular condition.

However, everyone starts this program at a different level of fitness. That's why the specific exercises are individualized to fit your needs and progress. To develop your own specific exercise program:

1. Turn to pages 11 through 17 . Read the description about the position and count of each exercise.
2. Examine the pictures of each exercise.
3. Try each exercise, concentrating on how they feel and which muscles seem to be working the hardest.
4. Answer the check-test questions to see whether you are doing the exercise correctly.
5. Take the self-test so you will know how much muscular strength and endurance you have for each exercise.
6. Record your results in the provided spaces. You'll refer to the results when you officially start your program.

- **The Cool-off** exercises on page 18 will help you relax at the end of your exercise period. They relieve the tension you might feel from working so hard. Add a quick shower and you're ready for other activities.

## Warm-ups





**Trunk Circling — 5 each direction**



Turn your entire trunk to the right making a big imaginary circle with your head



Repeat turning your trunk to the left

**Toe and Nose Touching — 5 times**



With legs straight stretch holding your nose close to your knees for a count of 6



Roll back, tucking your legs to your chest as you roll



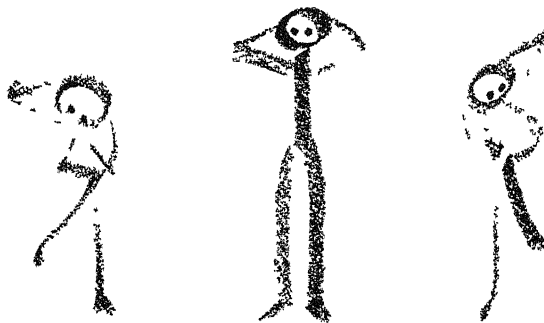
Bring your knees to your nose, supporting your hips with your hands. Hold for a count of 5

**Light Run in Place — 20 times**



Run in place picking the knees up high. Count each time your left foot hits the floor.

**Elbow to Knee Touches**



Clasp your hands behind your head and twist to the right. Touch left elbow to your raised right knee.

Return to stand.

Touch right elbow to your left knee. Repeat sequence 5 times.

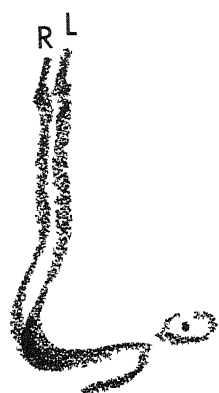
## Specific Exercise Program

### Leg Scissors

**Description:** Lie on your back with arms extended on the floor at shoulder height and legs together as your toes point to the ceiling.

**Count 1** Squeeze legs together crossing the right leg in front of the left at the knee.

**Count 2** Cross the left leg in front of the right. Repeat, alternating left and right crosses.



Starting Position



Count 1



Count 2

#### Check-test:

1. Were the muscles in your stomach tight?
2. Could you feel the front thigh muscles tighten?
3. Were your legs straight?

Yes No

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

If you checked "yes" three times, take the self-test; if not, re-read the description and try the exercise again until you can answer "yes" to all the questions.

#### Self-test:

Do as many *consecutive* leg scissors as you can do in 60 seconds.

Record your score here: \_\_\_\_\_

## Curl

**Description:** Lie on your back, knees bent, feet flat on the floor, and arms extended beside your hips.

**Count 1** Curl up and touch your hands to your knees.

**Count 2** Curl down to starting position.



Starting Position



Count 1



Count 2

### Check-test:

- |                                                                                 | Yes   | No    |
|---------------------------------------------------------------------------------|-------|-------|
| 1. Did you feel your stomach muscles tighten?                                   | _____ | _____ |
| 2. Did you touch your knees?                                                    | _____ | _____ |
| 3. Did you secure your feet under a sofa or dresser if they came off the floor? | _____ | _____ |

If you checked "yes" three times, take the self test; if not, re-read the description and try the exercise again until you can answer "yes" to all of the questions.

### Self-test:

Do as many *consecutive* curls as you can do in 60 seconds.

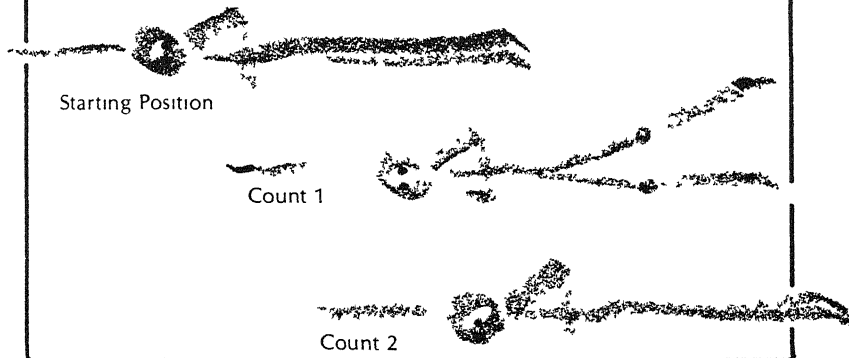
Record your score here: \_\_\_\_\_

## Side Leg Lifts

**Description:** Lie on your side with one arm extended and the other arm braced against the floor for support.

**Count 1** Lift the top leg, keeping the leg straight and the knee pointing forward.

**Count 2** Lower leg to the original position. Repeat according to your exercise schedule. Then repeat for other side.



### Check-test:

	Yes	No
1. Did you feel your thigh muscles tighten?	___	___
2. Was your knee pointing forward?	___	___
3. Did you lift your leg sideward rather than forward?	___	___

If you checked "yes" three times, take the self-test; if not, re-read the description and try the exercise again until you can answer "yes" to all of the questions.

### Self-test:

Do as many consecutive side leg lifts as you can do in 60 seconds.

Record your score below. Repeat the test on the other side and record your score.

Record your scores here: \_\_\_\_\_/\_\_\_\_\_

## Ankle Flex and Extend

**Description:** Sit with back straight, hands resting on the floor close to your hips and legs extended forward.



Starting Position

**Count 1** Flex ankles so toes point toward your forehead.

**Count 2** Extend ankles and point toes straight ahead.



Count 1



Count 2

### Check-test:

Yes No

1. Did you feel your arches tighten on count 2? \_\_\_\_\_
2. Did you feel your lower leg muscles working? \_\_\_\_\_

If you checked "yes" two times, take the self-test; if not, re-read the description and try the exercise again until you can answer "yes" to all of the questions.

### Self-test:

Do as many *consecutive* ankle flex and extensions as you can do in 60 seconds.

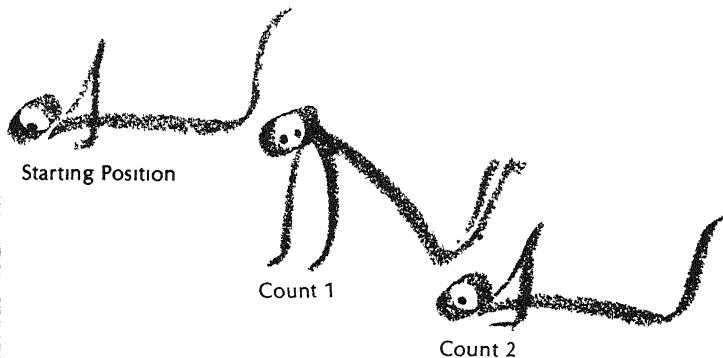
Record your score here: \_\_\_\_\_

## Push-ups

**Description:** Lie face down, hands on the floor by your shoulders with fingers pointing forward and knees bent.

**Count 1** Tighten body and push your trunk up, keeping your hips and shoulders in a straight line.

**Count 2** Return to starting position.



### Check-test:

- |                                                                 | Yes | No  |
|-----------------------------------------------------------------|-----|-----|
| 1. Did you feel your arm muscles tighten?                       | ___ | ___ |
| 2. Did your back feel straight and strong?                      | ___ | ___ |
| 3. Did you keep your seat down rather than pushing it up first? | ___ | ___ |

If you checked "yes" three times, take the self-test; if not, re-read the description and try the exercise again until you can answer "yes" to all the questions.

### Self-test:

Do as many *consecutive* push-ups as you can in 60 seconds.

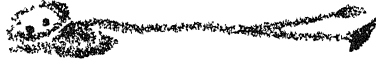
Record your score here: \_\_\_\_\_

## Buttock Squeeze

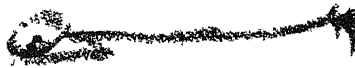
**Description:** Lie face down, arms relaxed, with heels and legs rolled out and toes pointing in.

**Count 1** Tighten buttocks and pull legs and heels together.

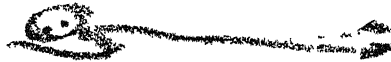
**Count 2** Relax, rolling heels and legs out again. Repeat.



Starting Position



Count 1



Count 2

### Check-test:

- |                                                                     | Yes   | No    |
|---------------------------------------------------------------------|-------|-------|
| 1. Could you feel your buttock tighten?                             | _____ | _____ |
| 2. Could you feel the muscles on the inside of your thighs tighten? | _____ | _____ |
| 3. Did you relax all your muscles?                                  | _____ | _____ |

If you checked "yes" three times, take the self-test; if not, re-read the description and try the exercise again until you can answer "yes" to all of the questions.

### Self-test:

Do as many *consecutive* buttock squeezes as you can in 60 seconds.

Record your score here: \_\_\_\_\_

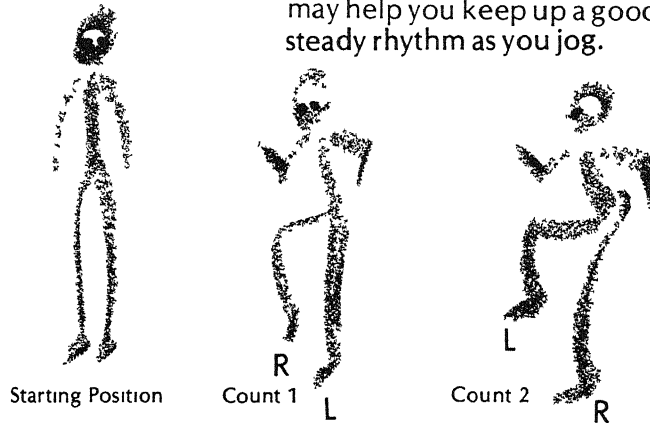


## Running in Place

**Description:** Standing with good posture, jog in place. Wear lightweight tennis shoes and jog on a carpet, if possible.

**Count 1** Lift right foot and swing arms freely from your shoulder as you would when running.

**Count 2** Lift left foot, placing right foot back on the floor. Music may help you keep up a good, steady rhythm as you jog.



### Check-test:

- |                                                                    | Yes   | No    |
|--------------------------------------------------------------------|-------|-------|
| 1. Did you keep your head up and your chest expanded?              | _____ | _____ |
| 2. Did you breathe deeply and regularly?                           | _____ | _____ |
| 3. Did you swing your arms and keep an even rhythm with each step? | _____ | _____ |

If you checked "yes" three times, take the self-test; if not, re-read the description and try the exercise again until you can answer "yes" to all of the questions.

### Self-test:

Jog in place with a peppy rhythm as long as you can do so comfortably. Time yourself. Do not jog for more than 10 minutes.

Record your time here: \_\_\_\_\_

## Cool-offs

**Breathe and Stretch — 10 times**



Inhale and stretch for the ceiling



Exhale and droop toward the floor

**Stretch and Reach — 10 times**



Stretch the left side of the body toward the ceiling



Repeat for the right side, then alternate

**Arch and Sag — 10 times**



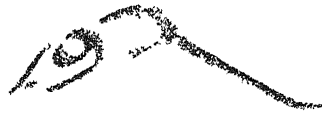
Inhale as you push your lower back toward the ceiling



Exhale as you stretch your nose to the ceiling and let your back sag

### Three-point Stretch — 3 times each direction

Hold your nose to  
your right knee for  
a count of 5 with-  
out bouncing



Hold your nose to  
the floor for a count  
of 5 Don't bounce



Hold your nose to  
your left knee for  
a count of 5 with-  
out bouncing



### Shake all Over — 15 seconds



## Instructions for Success

Now that you know how to do all of the exercises and have taken the self-tests, you are ready to start your own personalized program. You will use your self-test scores to design a personalized exercise routine. Here's how:

- 1 Turn to the next page and fill in column A on the chart. You may need to refer back to your record self-test scores

2. Calculate your workload for each week, rounding off fractions. Instructions are at the top of each column of the chart on the next page. Record your workload in the appropriate box. For example, if you did 20 leg scissors in 60 seconds, you would record the number 20 in column A. In column B, you would write, 10 — one-half of column A. Column C would be 15 — or three-fourths of column A. And so on.
3. Exercise three times a week. If you have time, you can exercise more often. Each week, increase your workload according to the chart you just filled out. If you can't exercise three days in the week, do not increase your workload the following week. If you miss exercising for several weeks, repeat the original tests and start the program again, using your new score to determine your workload.
4. If the workloads are too much for you, don't give up. The workloads are only a goal. It may take you two weeks instead of one to reach your workload goal.
5. If the exercises seem too easy, see page 22 for adaptations. Adjust accordingly.
6. Do warm-up and cool-off exercises as recommended on pages 8 and 18. You don't need to figure out a personalized program for these exercises.

Don't be surprised if you experience some muscle soreness during the first week or so. The effort you put into the self-tests and the fact that you are exercising more regularly than usual may result in some stiffness, soreness, and grumbling. But cheer up! Things will get easier after you're over the hump!

Try to make exercising fun. To add enjoyment, exercise to music or find a partner. Or try exercising with a child. You'll be surprised how enthusiastic most children are about "exercising with Mommy." And that enthusiasm is catching.

Finally, keep at it. You may not see immediate improvement. In fact, you probably won't. Remember, you didn't gain those extra pounds and get out of condition overnight. It took time. And it takes time to reverse the process, too.

**Your Personalized Workload  
for Specific Exercises**

Exercises	Page	A. How many consecutive times could you do this exercise in 60 seconds?	B. Workload Week 1 (½ column A)	C. Workload Week 2 (¾ column A)	D. Workload Week 3 (same as column A)	E. Workload Week 4 (all of col- umn A + 10% A)	F. Workload Week 5 (column E + 10% A)	G. Workload Week 6 (column F + 10%A)
Leg Scissors	11							
Curl	12							
Side Leg Lifts	13							
Ankle Flex & Extend	14							
Push-up	15							
Buttock Squeeze	16							
Jogging in Pace	17							

**EXAMPLE:**

Push-up	15	12	6	9	12	13	14	15
Curl	12	20	10	15	20	22	24	26

## Exercise Adaptations

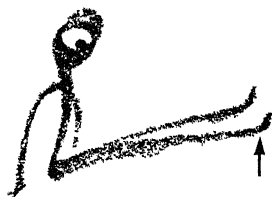
Try these adaptations for the exercises that you believe are too easy or too boring. You may add these adaptations to your program.

**Leg Scissors:** Wear heavy shoes.

**Side Leg Lifts:** Wear heavy shoes or try this exercise.



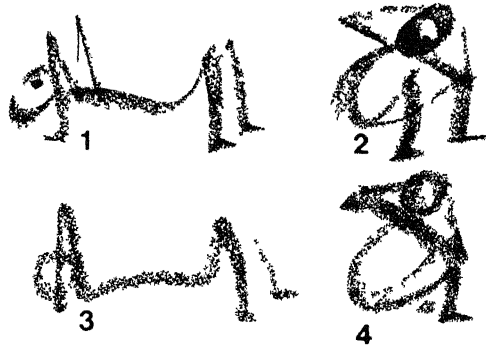
**Ankle Flex & Extend:** Sit with your back against a wall and hold your legs slightly off the floor while you flex and extend; you will be using some new muscles.



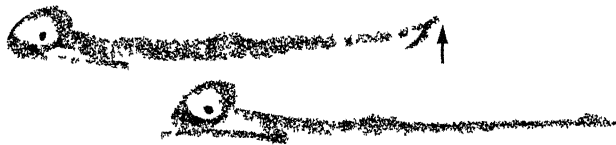
**Push-up:** Do push-up with a straight body and extended legs.



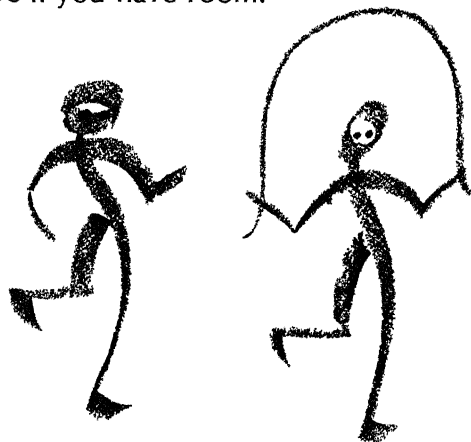
**Curl:** Place your hands on your shoulders and twist as you curl up to touch your elbow to your knee.



**Buttock Squeeze:** Raise legs slightly off the floor on the count of one as the heels are brought in; lower them on the count of two as you relax.



**Jogging in Place:** Run in place at a more rapid pace or jump rope if you have room.



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